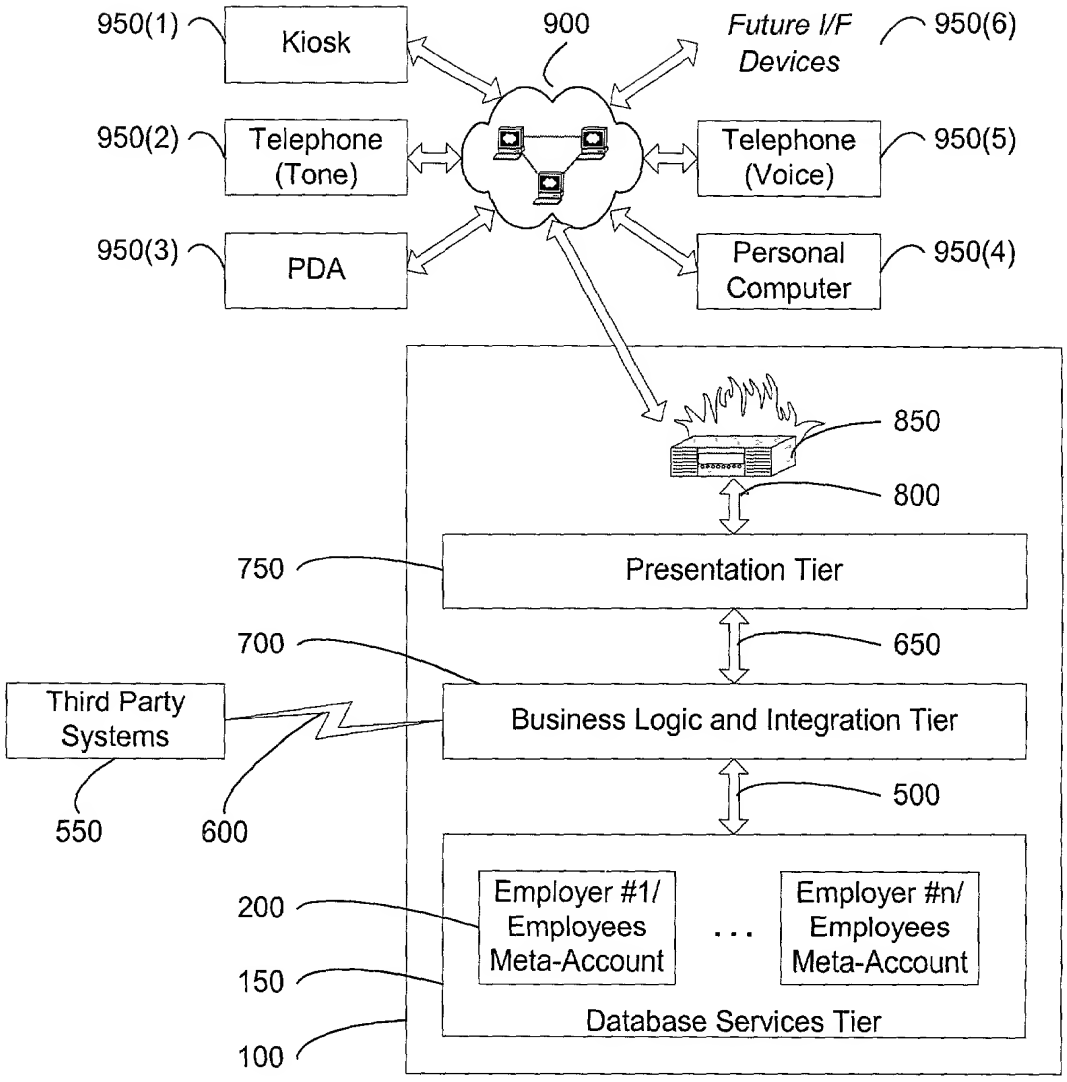
950(1)
Kiosk
900
Future I/F Devices
950(6)
950(2)
Telephone (Tone)
Telephone (Voice)
950(5)
950(3)
PDA
Personal Computer
950(4)
850
800
750
Presentation Tier
700
650
Third Party Systems
Business Logic and Integration Tier
500
550
600
200
Employer #1/ Employees Meta-Account
...
Employer #n/ Employees Meta-Account
150
Database Services Tier
100

FIG. 1

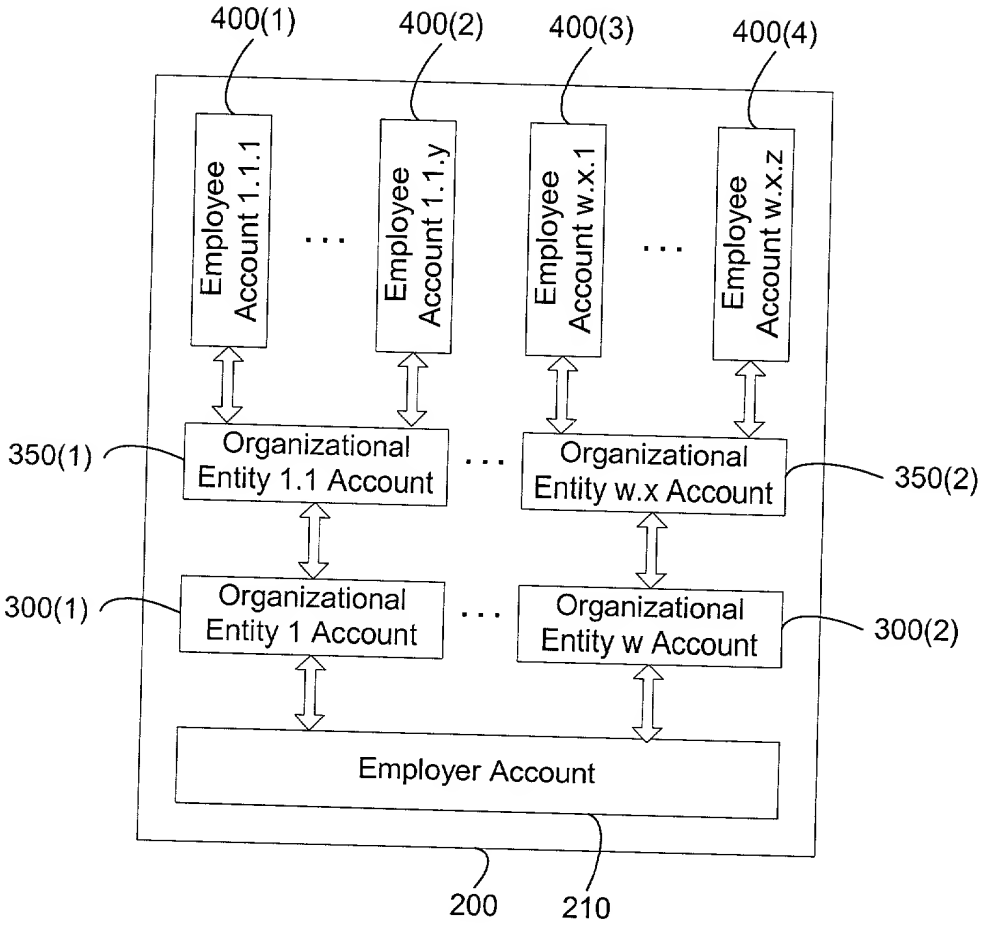
400(1)
400(2)
400(3)
400(4)
Employee Account 1.1.1
Employee Account 1.1.y
Employee Account w.x.1
Employee Account w.x.z
350(1)
Organizational Entity 1.1 Account
Organizational Entity w.x Account
350(2)
300(1)
Organizational Entity 1 Account
Organizational Entity w Account
300(2)
Employer Account
200
210

FIG. 2A

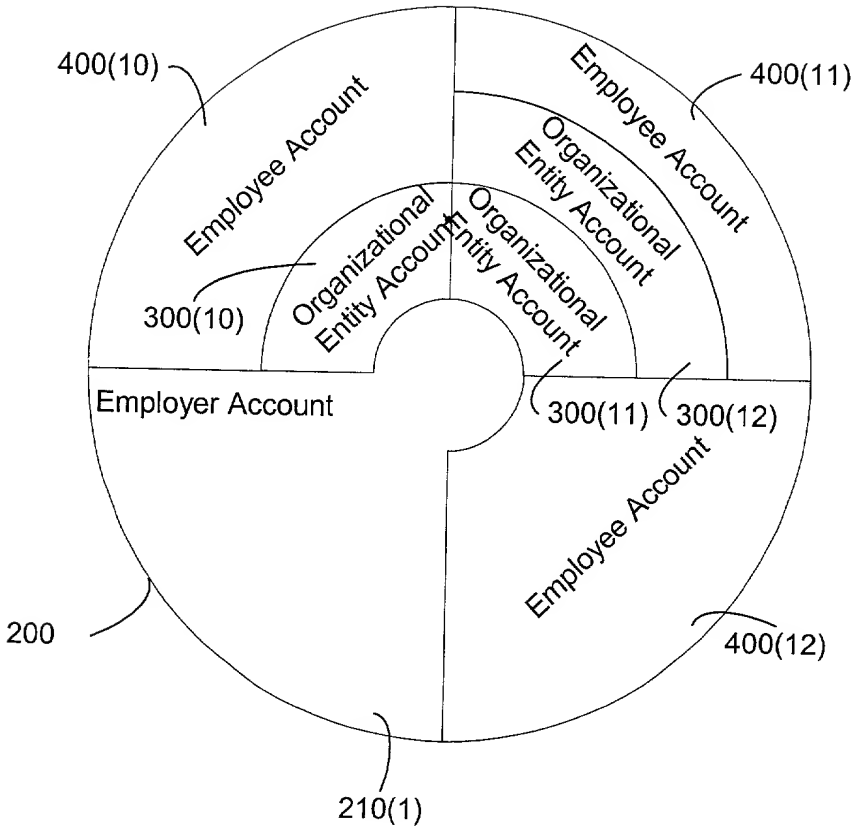
400(10)
Employee Account
400(11)
Employee Account
Organizational Entity Account
Organizational Entity Account
Organizational Entity Account
300(10)
Employer Account
300(11)
300(12)
Employee Account
200
400(12)
210(1)

FIG. 2B

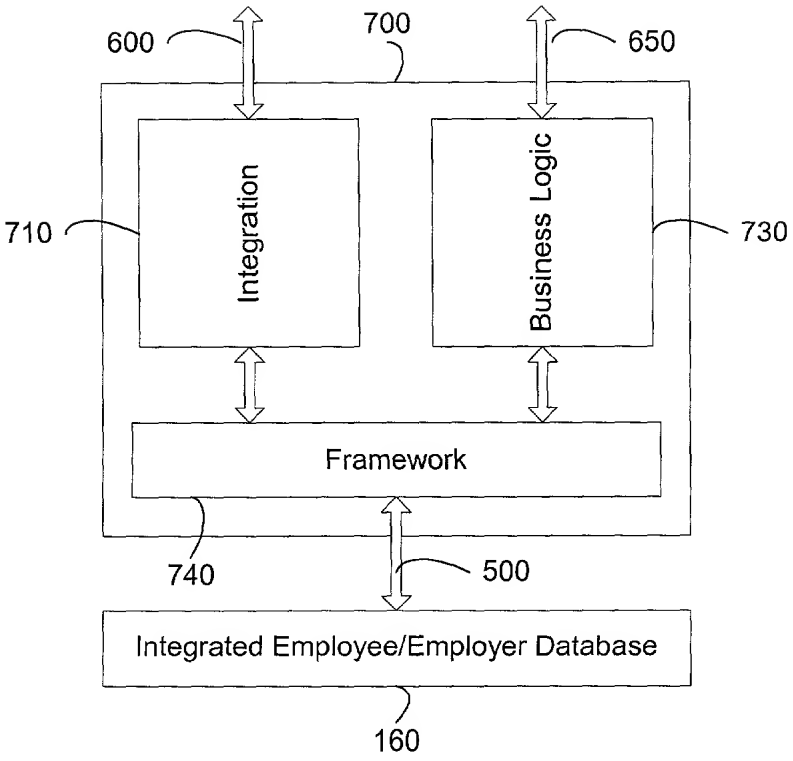
600
700
650
Integration
Business Logic
710
730
Framework
740
500
Integrated Employee/Employer Database
160

FIG. 3

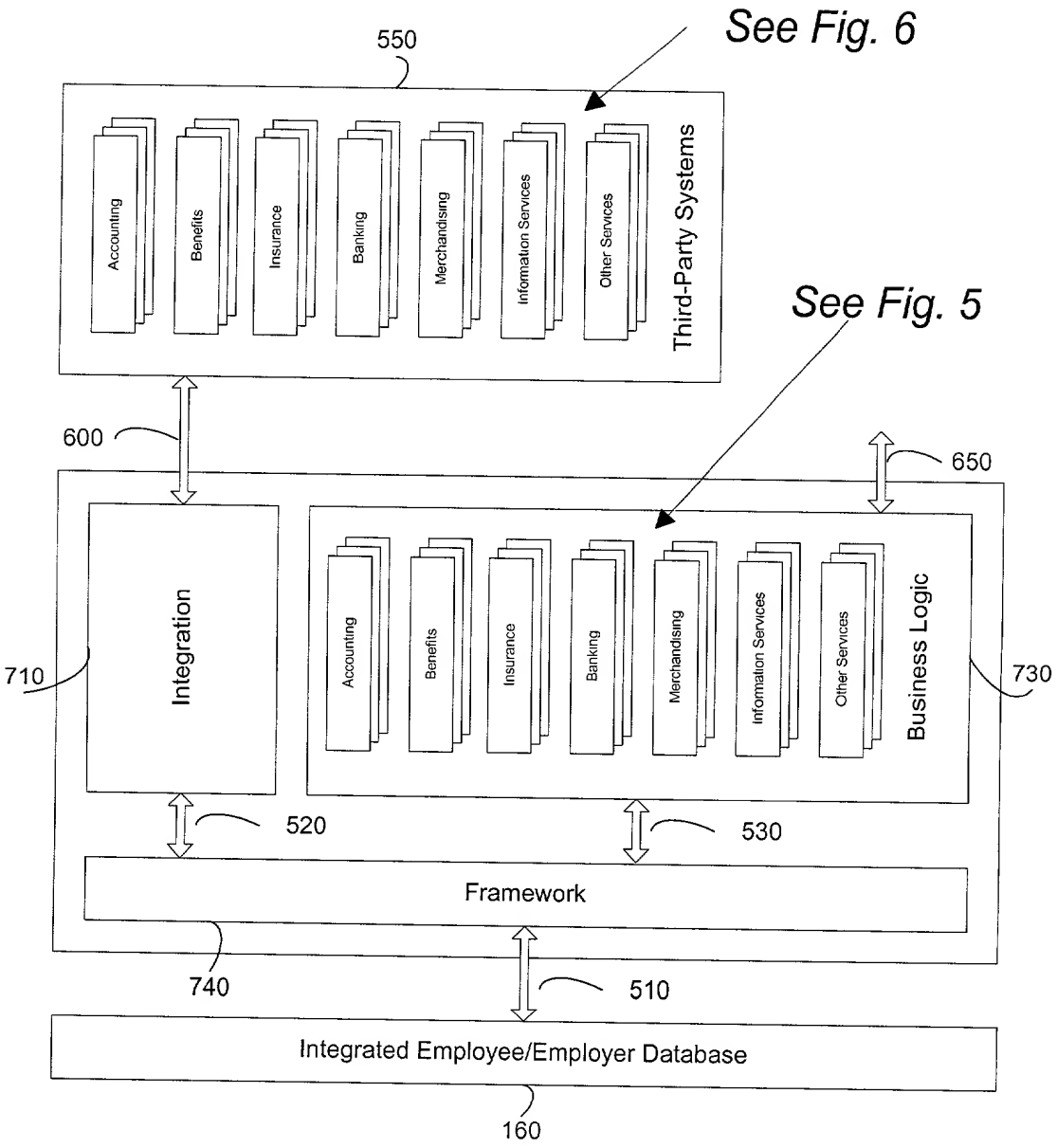
See Fig. 6
550
Accounting
Benefits
Insurance
Banking
Merchandising
Information Services
Other Services
Third-Party Systems
See Fig. 5
600
650
Integration
710
Accounting
Benefits
Insurance
Banking
Merchandising
Information Services
Other Services
Business Logic
730
520
530
Framework
740
510
Integrated Employee/Employer Database
160

FIG. 4

730

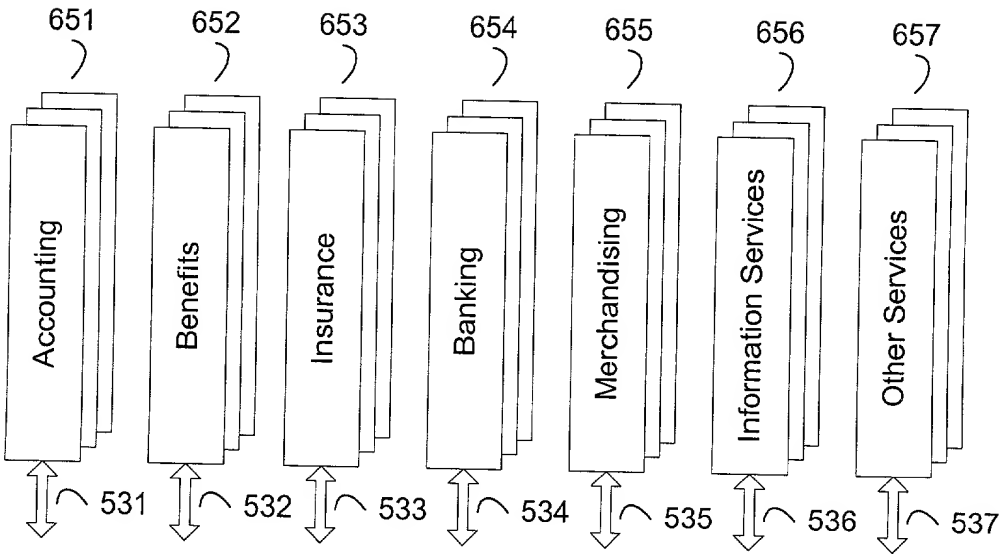
651
652
653
654
655
656
657
Accounting
Benefits
Insurance
Banking
Merchandising
Information Services
Other Services
531
532
533
534
535
536
537

FIG. 5

550

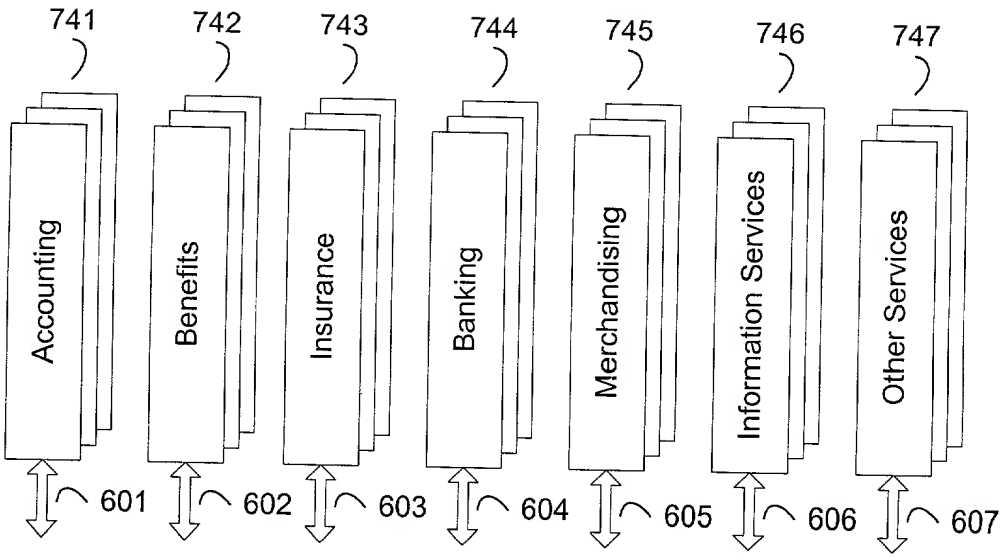
741
742
743
744
745
746
747
Accounting
Benefits
Insurance
Banking
Merchandising
Information Services
Other Services
601
602
603
604
605
606
607

FIG. 6

```
<xmlEmployer Name = "BestCo" FederalID = "01-23456789">
    <Address          Name =              "BestCo"
                      Street_1 =          "123 Industrial Drive"
                      Street_2 =          "Suite B"
                      City =              "Charleston"
                      State =             "SC"
                      ZipCode =           "12345-6789"
                      Country =           "US"  />
    <LegalAddress     Name =              "BestCo, Incorporated"
                      Street_1 =          "123 Industrial Drive"
                      Street_2 =          "Suite B"
                      City =              "Charleston"
                      State =             "SC"
                      ZipCode =           "12345-6789"
                      Country =           "US"  />
    <Voice            Number =            "123.456.7890" />
    <Fax              Number =            "123.456.7891" />
    <EMail            Address =           "Personnel@bestco.com"/>
    <Web              URL =               "http://www.bestco.com" />
    <Taxes            FirstFiscalMonth =  "January"
                      FirstTaxMonth =     "January"
                      CompanyType    =    "Corporation" />
    <AccountList>
        <Account      Name =              "Bank of America Checking"
                      Type =              "Banking"
                      AccountID =         "987654321-0000"
                      TransferID =        "123456789-0000" />
        <Account      Name =              "OfficeMax.com"
                      Type =              "Merchandising"
                      AccountID =         "76543210-0000"
                      TransferID =        "01234567-0000" />
    </AccountList>
</xmlEmployer>
```

FIG. 7

```
<xmlEmployerOrganization Name = "BestCo Web Hosting">
    <MemberOf      Name =          "BestCo"
                   FederalID =     "01-23456789" />
    <Address       Name =          "BestCo Web Hosting"
                   Street_1 =      "321 Industrial Drive"
                   Street_2 =      "Suite C"
                   City =          "Columbia"
                   State =         "SC"
                   ZipCode =       "12345-6780"
                   Country =       "US"  />
    <Voice         Number =        "803.556.8890" />
    <Fax           Number =        "803.556.8891" />
    <EMail         Address =       "Personnel@bestco-wh.com"/>
    <Web           URL =           "http://www.bestco-wh.com" />
    <AccountList>
        <Account   Name =          "AFLAC"
                   Type =          "Insurance, Supplemental"
                   AccountID =     "000999888777"
                   TransferID =    "111222333444555" />
        <Account   Name =          "Bank of America Checking"
                   Type =          "Banking"
                   AccountID =     "987654321-0001"
                   TransferID =    "123456789-0001" />
        <Account   Name =          "Amazon.com"
                   Type =          "Merchandising"
                   AccountID =     "76543210-0001"
                   TransferID =    "01234567-0001" />
        <Account   Name =          "ToysRUs.com"
                   Type =          "Merchandising"
                   AccountID =     "1122334455"
                   TransferID =    "5544332211" />
    </AccountList>
</xmlEmployerOrganization>
```

FIG. 8

```
<xmlEmployee Name = "John Fred Smith" SSN  = "012-34-5678">
      <MemberOf      Name =          "BestCo"
                     FederalID =     "01-23456789" />
      <Address       Name =          "Mr. John Fred Smith"
                     Street_1 =      "414 Oak Lane"
                     Street_2 =      ""
                     City =          "Columbia"
                     State =         "SC"
                     ZipCode =       "12345-6789"
                     Country =       "US"  />
      <Voice         Number =        "803.554.7822" />
      <Work          Number =        "803.555.8801" />
      <Fax           Number =        "803.554.7823" />
      <EMail         Address =       "John.Smith@bestco-wh.com"/>
      <AccountList>
            <Account Name =          "First Union"
                     Type =          "Checking"
                     AccountID =     "443042029"
                     TransferID =    "12345679-0001"  />
            <Account Name =          "MBNA"
                     Type =          "Credit Card"
                     AccountID =     "0123-333-4934-0912"
                     TransferID =    "009988776655"
                     Expiration =    "7/2003" />
            <Account Name =          "First Union"
                     Type =          "Home Mortgage"
                     AccountID =     "44-334425
                     TransferID =    "55444333222" />
      </AccountList>
</xmlEmployee>
```

FIG. 9

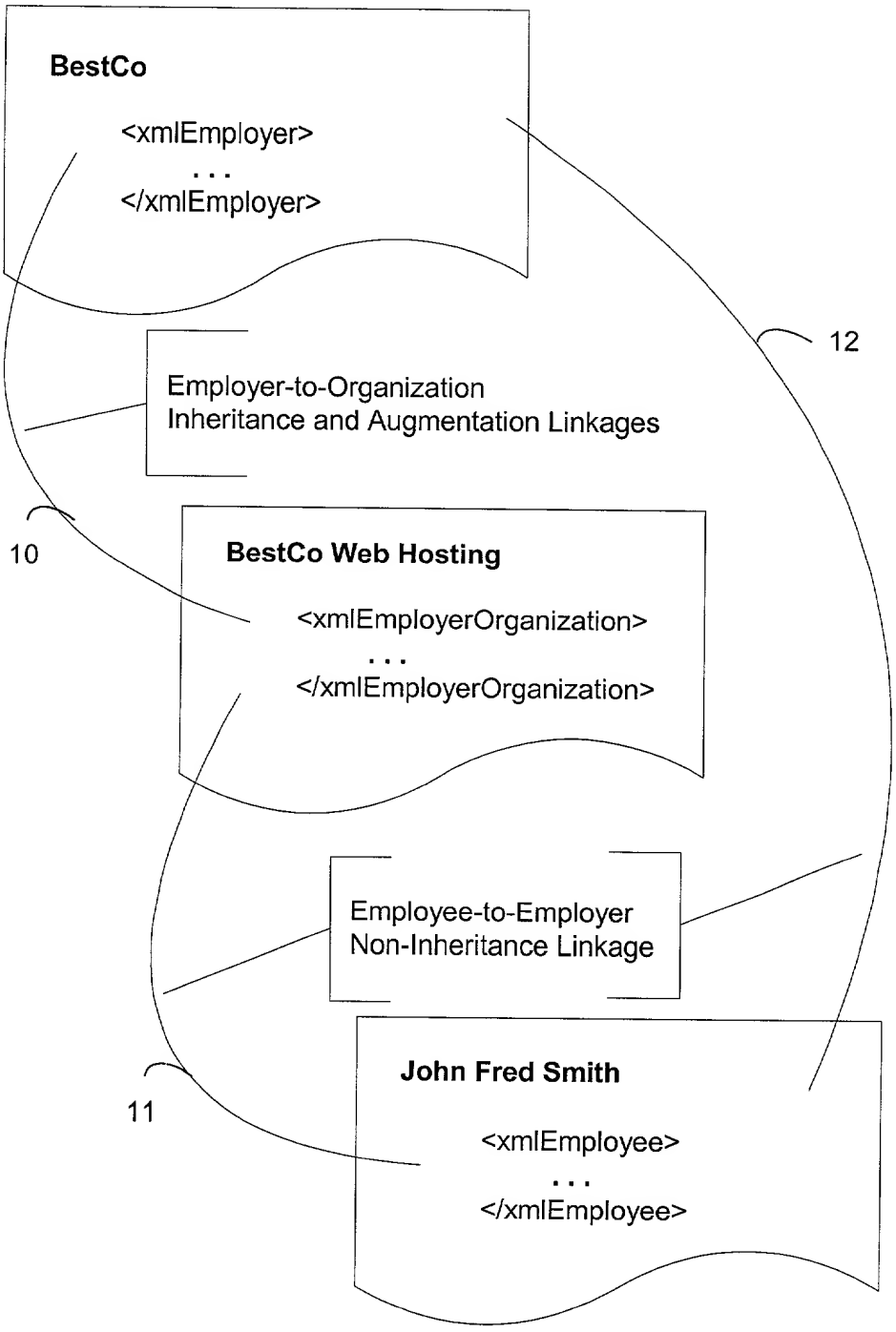
BestCo
<xmlEmployer>
. . .
</xmlEmployer>
12
Employer-to-Organization
Inheritance and Augmentation Linkages
10
BestCo Web Hosting
<xmlEmployerOrganization>
. . .
</xmlEmployerOrganization>
Employee-to-Employer
Non-Inheritance Linkage
John Fred Smith
11
<xmlEmployee>
. . .
</xmlEmployee>

FIG. 10

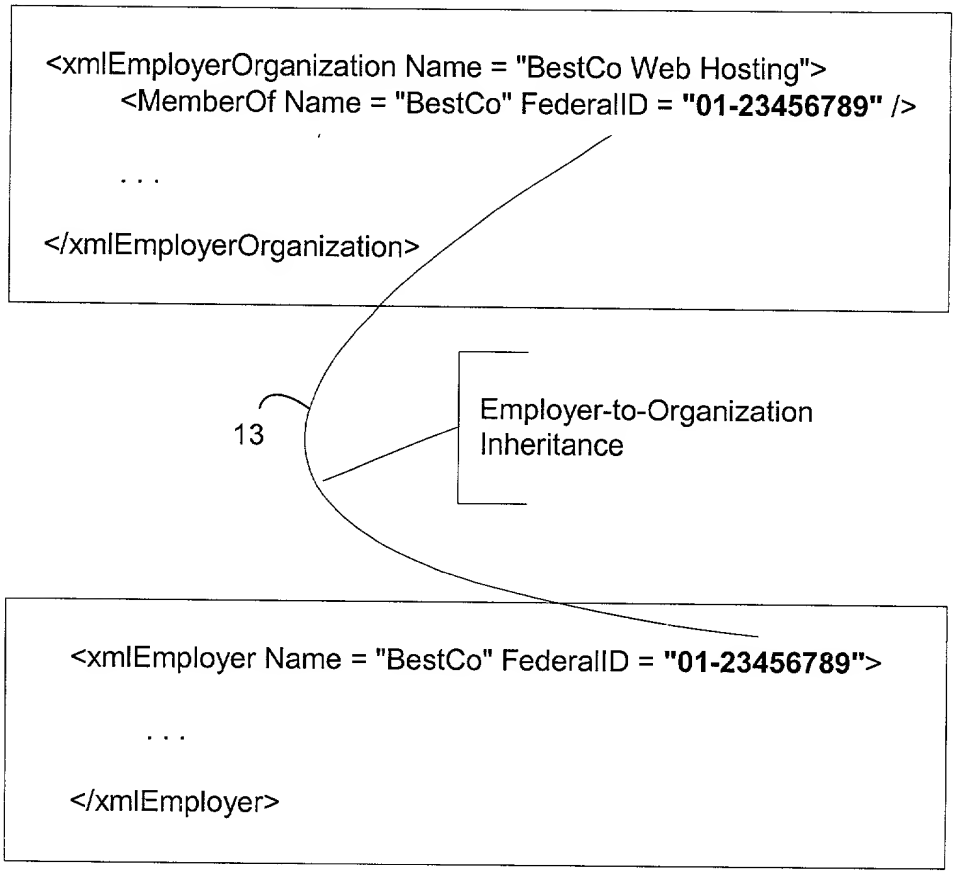
<xmlEmployerOrganization Name = "BestCo Web Hosting">
<MemberOf Name = "BestCo" FederalID = "01-23456789" />
. . .
</xmlEmployerOrganization>
13
Employer-to-Organization Inheritance
<xmlEmployer Name = "BestCo" FederalID = "01-23456789">
. . .
</xmlEmployer>

FIG. 11

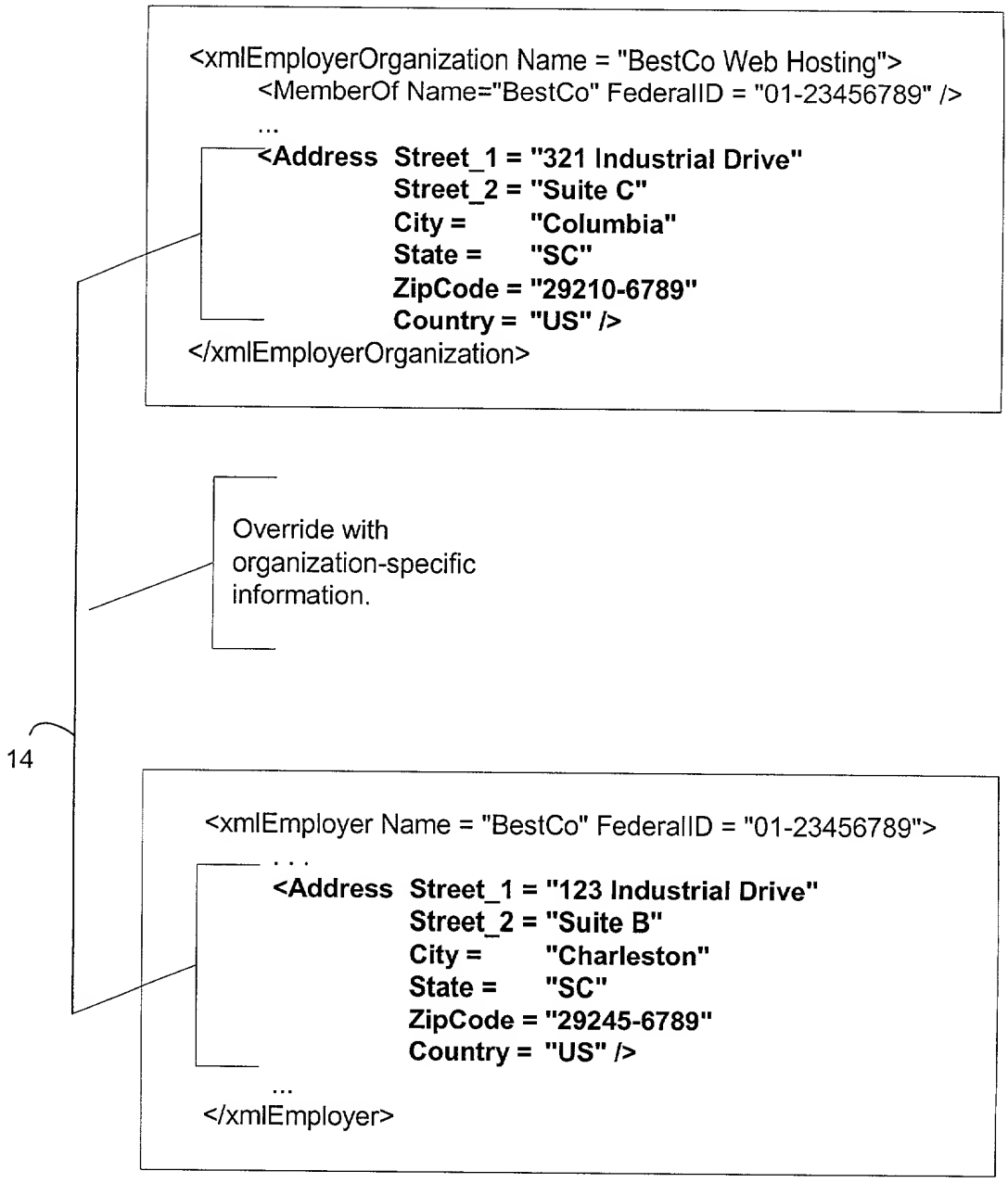
<xmlEmployerOrganization Name = "BestCo Web Hosting">
<MemberOf Name="BestCo" FederalID = "01-23456789" />
...
<Address Street_1 = "321 Industrial Drive"
Street_2 = "Suite C"
City = "Columbia"
State = "SC"
ZipCode = "29210-6789"
Country = "US" />
</xmlEmployerOrganization>
Override with organization-specific information.
14
<xmlEmployer Name = "BestCo" FederalID = "01-23456789">
. . .
<Address Street_1 = "123 Industrial Drive"
Street_2 = "Suite B"
City = "Charleston"
State = "SC"
ZipCode = "29245-6789"
Country = "US" />
...
</xmlEmployer>

FIG. 12

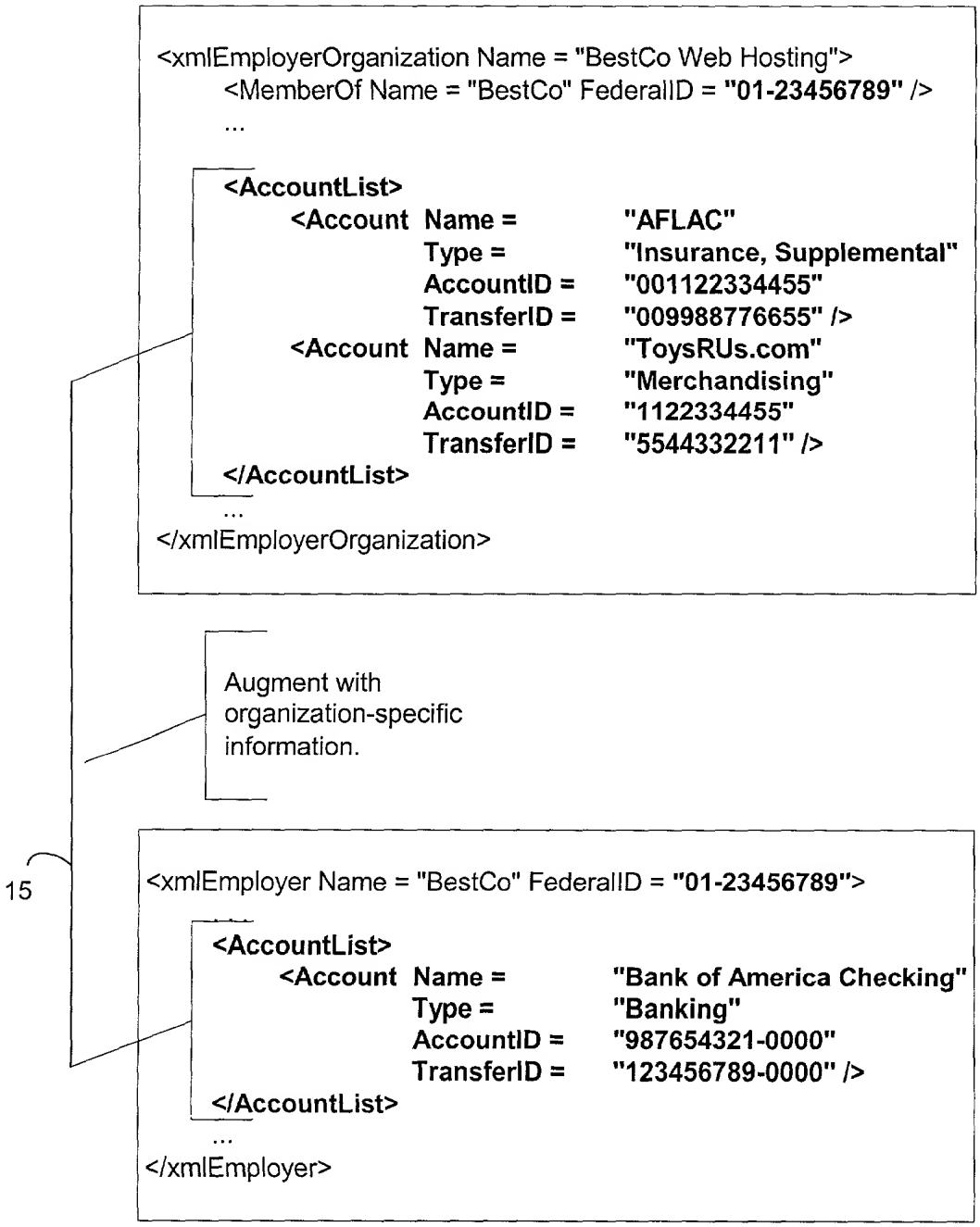
<xmlEmployerOrganization Name = "BestCo Web Hosting">
<MemberOf Name = "BestCo" FederalID = "01-23456789" />
...
<AccountList>
<Account Name = "AFLAC"
Type = "Insurance, Supplemental"
AccountID = "001122334455"
TransferID = "009988776655" />
<Account Name = "ToysRUs.com"
Type = "Merchandising"
AccountID = "1122334455"
TransferID = "5544332211" />
</AccountList>
...
</xmlEmployerOrganization>
Augment with organization-specific information.
15
<xmlEmployer Name = "BestCo" FederalID = "01-23456789">
<AccountList>
<Account Name = "Bank of America Checking"
Type = "Banking"
AccountID = "987654321-0000"
TransferID = "123456789-0000" />
</AccountList>
...
</xmlEmployer>

FIG. 13

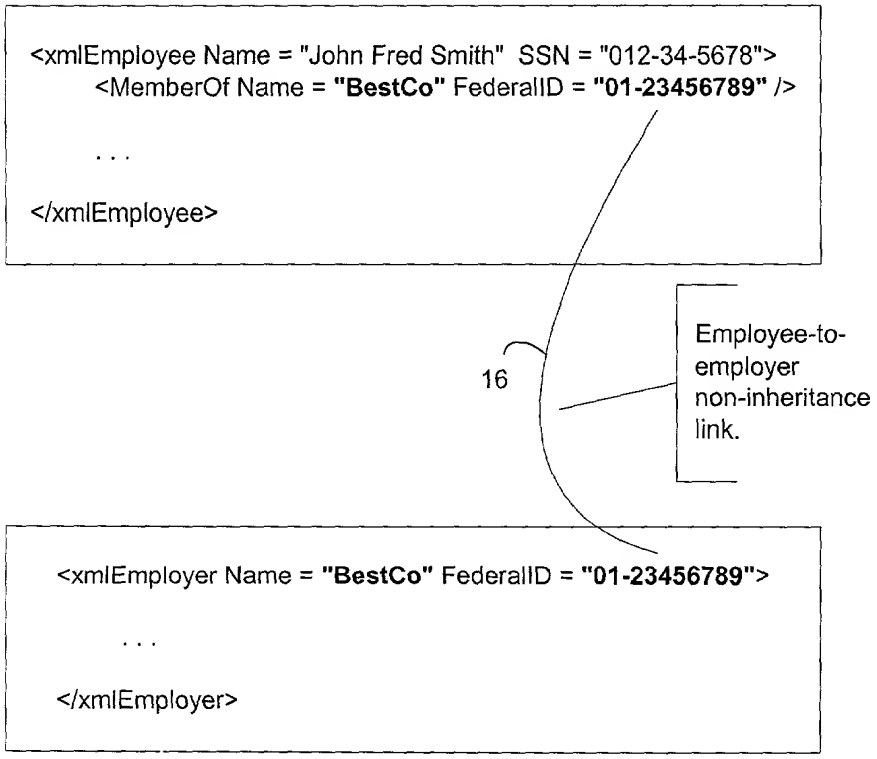
<xmlEmployee Name = "John Fred Smith" SSN = "012-34-5678">
<MemberOf Name = **"BestCo"** FederalID = **"01-23456789"** />
. . .
</xmlEmployee>
16
Employee-to-employer non-inheritance link.
<xmlEmployer Name = **"BestCo"** FederalID = **"01-23456789"**>
. . .
</xmlEmployer>

FIG. 14

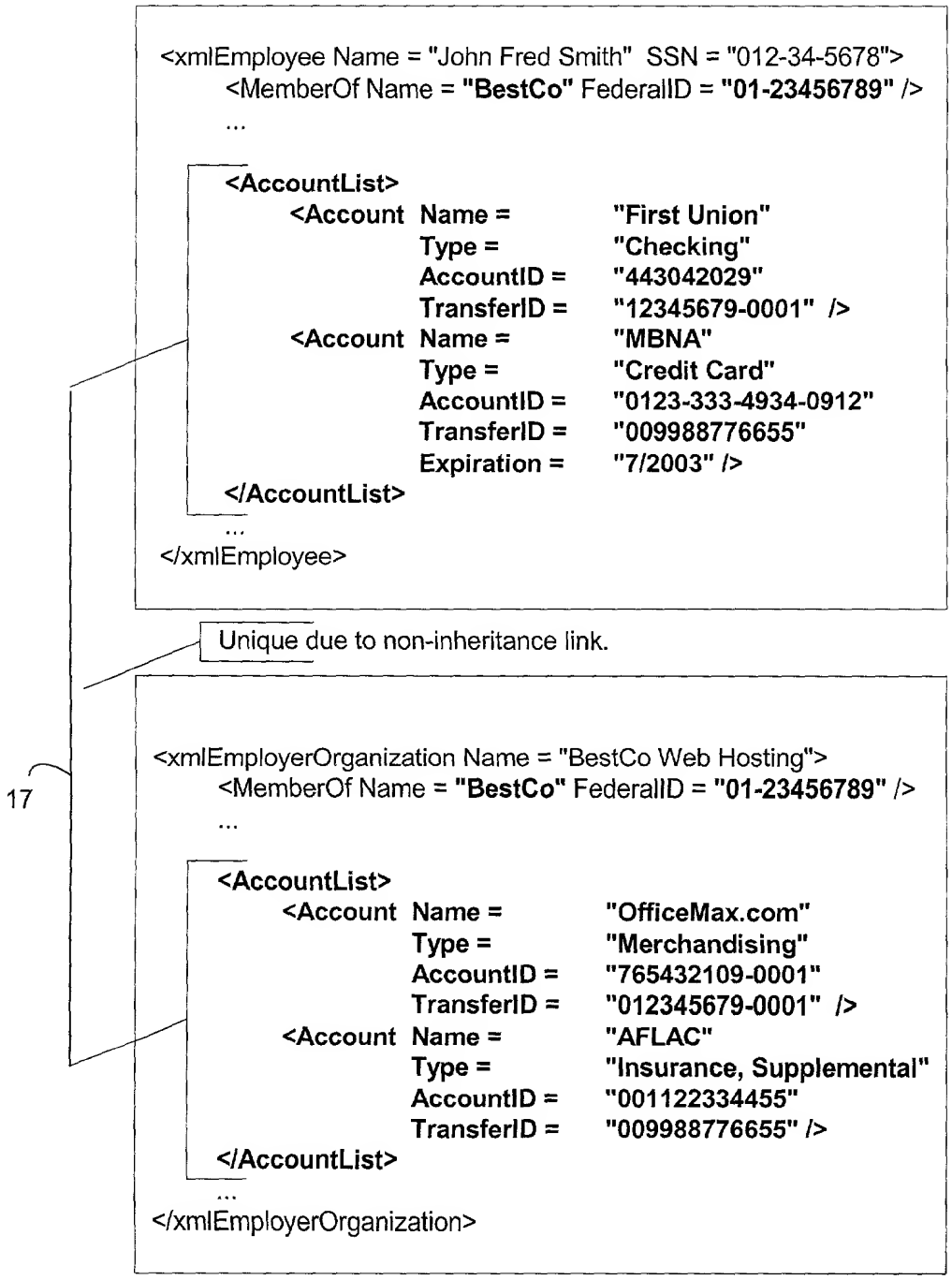
<xmlEmployee Name = "John Fred Smith" SSN = "012-34-5678">
<MemberOf Name = "BestCo" FederalID = "01-23456789" />
...
<AccountList>
<Account Name = "First Union"
Type = "Checking"
AccountID = "443042029"
TransferID = "12345679-0001" />
<Account Name = "MBNA"
Type = "Credit Card"
AccountID = "0123-333-4934-0912"
TransferID = "009988776655"
Expiration = "7/2003" />
</AccountList>
...
</xmlEmployee>
Unique due to non-inheritance link.
17
<xmlEmployerOrganization Name = "BestCo Web Hosting">
<MemberOf Name = "BestCo" FederalID = "01-23456789" />
...
<AccountList>
<Account Name = "OfficeMax.com"
Type = "Merchandising"
AccountID = "765432109-0001"
TransferID = "012345679-0001" />
<Account Name = "AFLAC"
Type = "Insurance, Supplemental"
AccountID = "001122334455"
TransferID = "009988776655" />
</AccountList>
...
</xmlEmployerOrganization>

FIG. 15

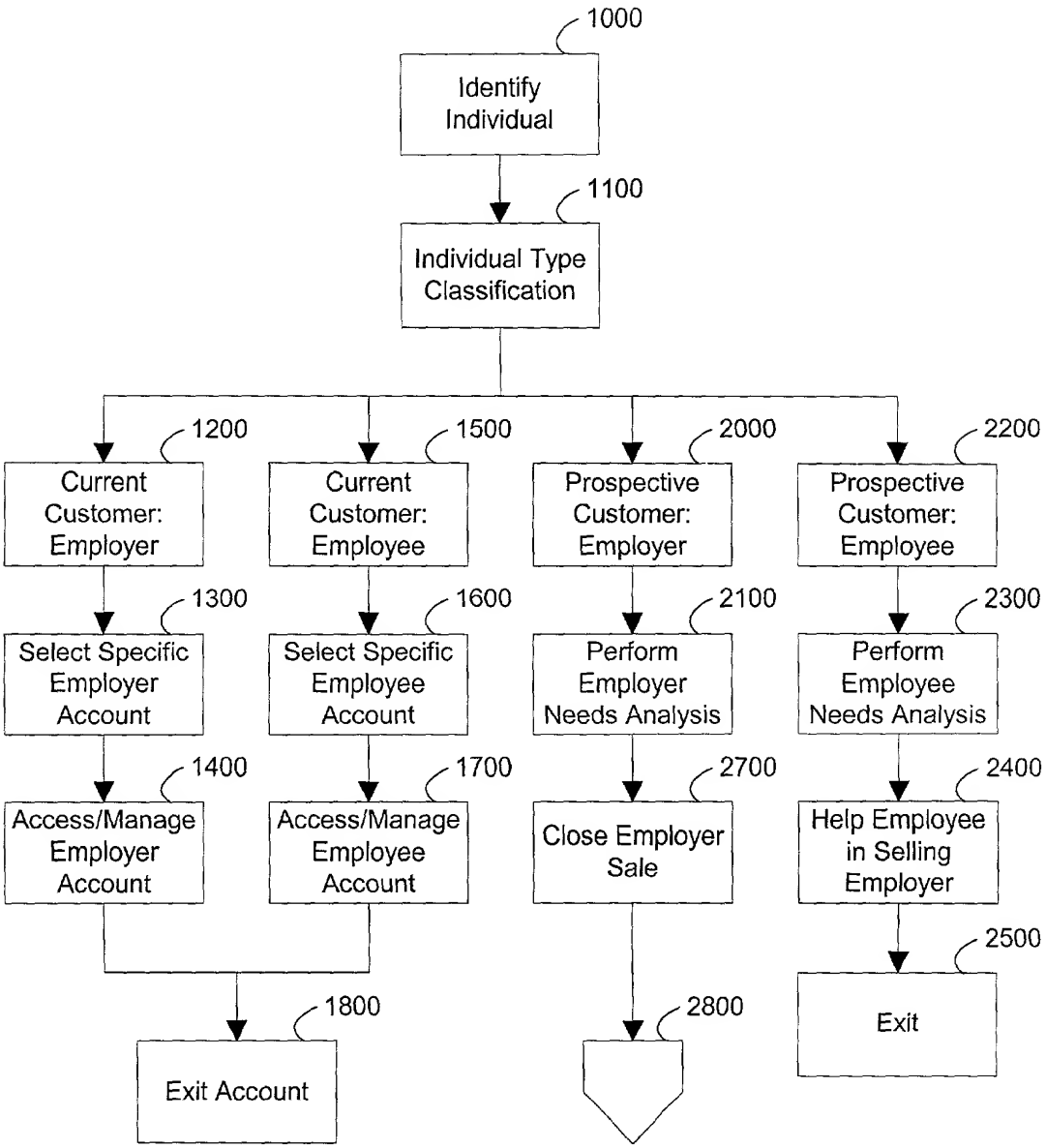
1000
Identify Individual
1100
Individual Type Classification
1200
Current Customer: Employer
1500
Current Customer: Employee
2000
Prospective Customer: Employer
2200
Prospective Customer: Employee
1300
Select Specific Employer Account
1600
Select Specific Employee Account
2100
Perform Employer Needs Analysis
2300
Perform Employee Needs Analysis
1400
Access/Manage Employer Account
1700
Access/Manage Employee Account
2700
Close Employer Sale
2400
Help Employee in Selling Employer
2500
Exit
1800
Exit Account
2800

FIG. 16A

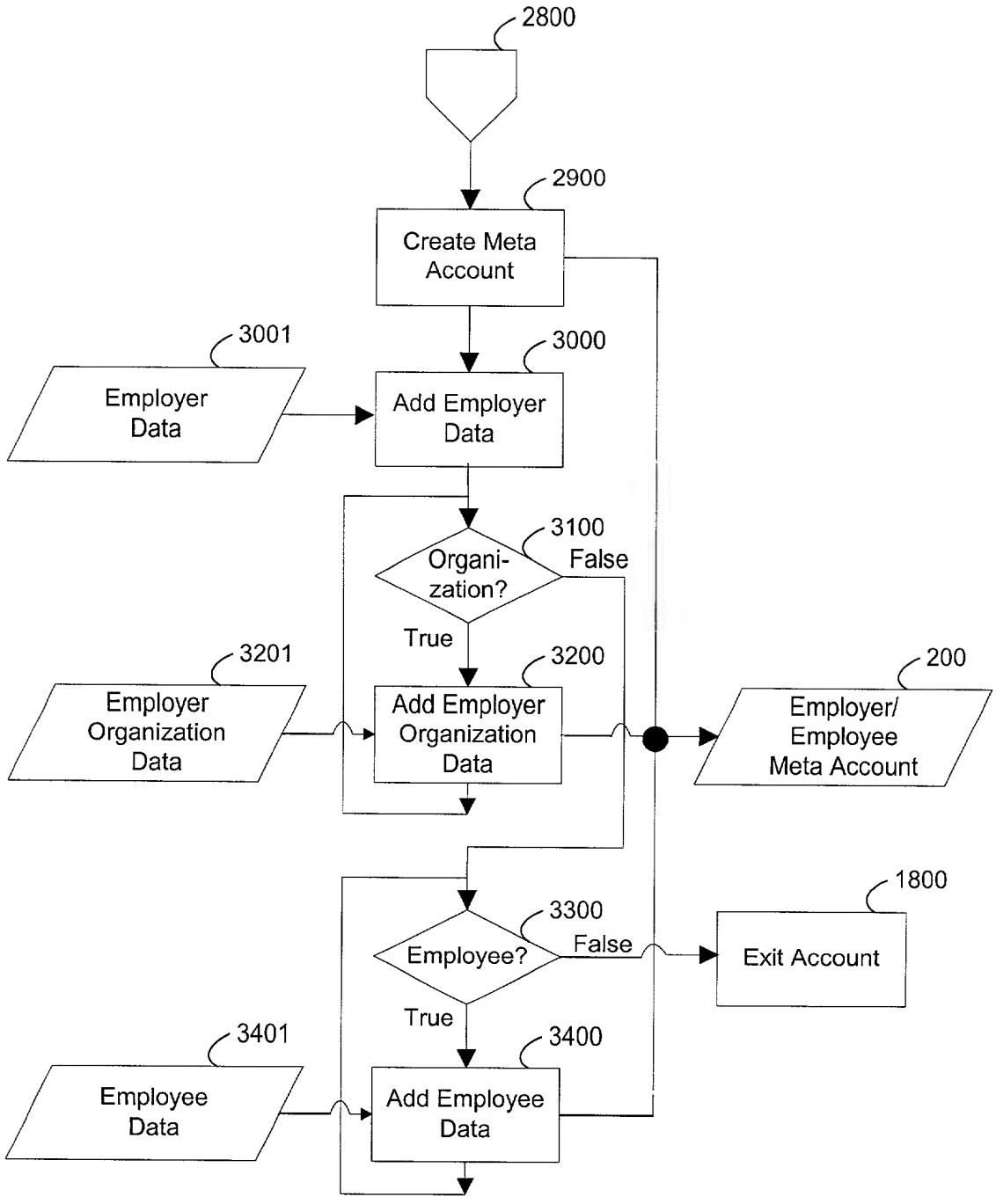
2800
2900
Create Meta Account
3001
Employer Data
3000
Add Employer Data
3100
Organi-zation?
False
True
3201
Employer Organization Data
3200
Add Employer Organization Data
200
Employer/ Employee Meta Account
1800
3300
Employee?
False
Exit Account
True
3401
Employee Data
3400
Add Employee Data

FIG. 16B

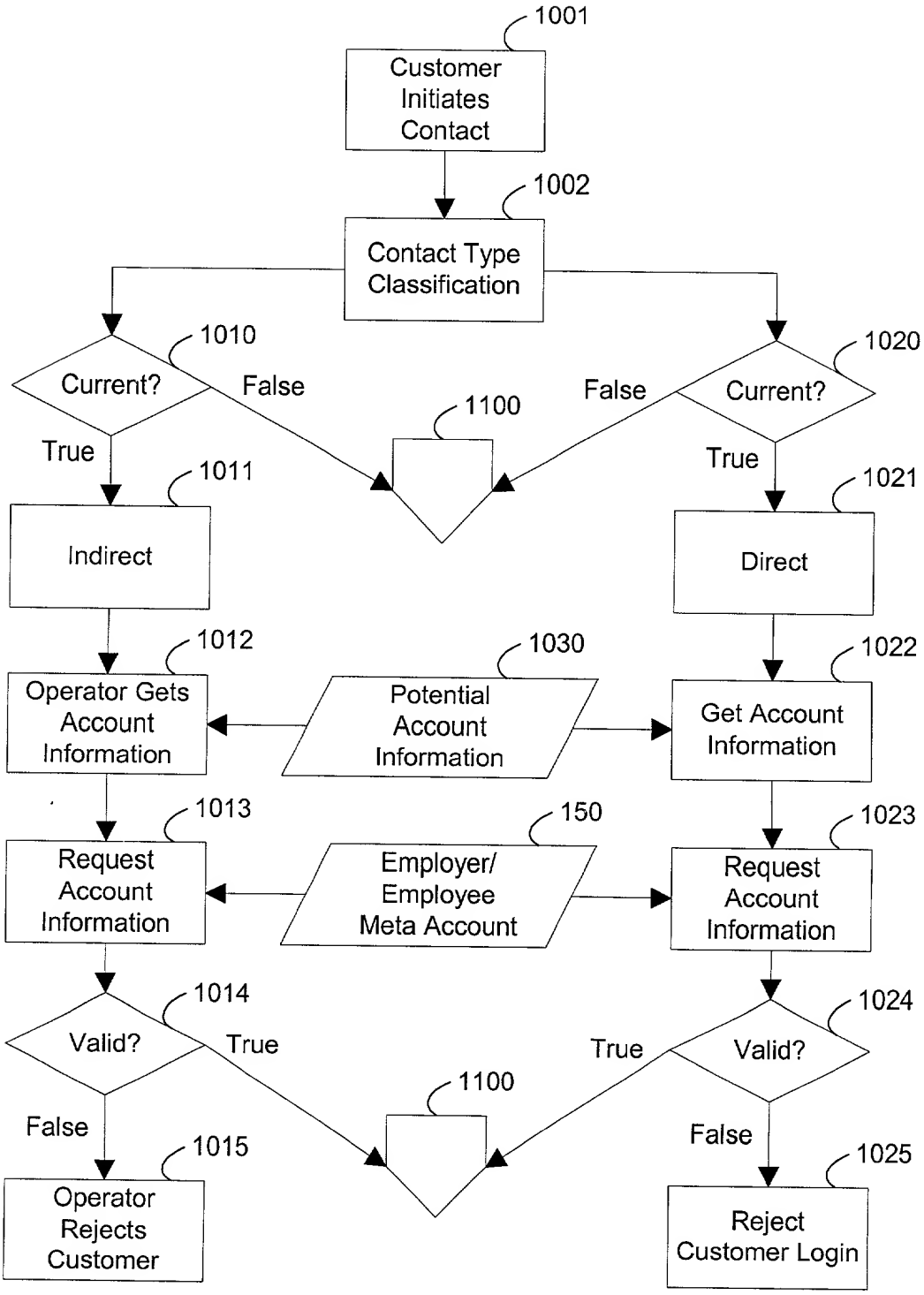
1001
Customer Initiates Contact
1002
Contact Type Classification
1010
Current?
False
True
1011
Indirect
1012
Operator Gets Account Information
1013
Request Account Information
1014
Valid?
True
False
1015
Operator Rejects Customer
1100
1020
Current?
False
True
1021
Direct
1022
Get Account Information
1023
Request Account Information
1024
Valid?
True
False
1025
Reject Customer Login
1030
Potential Account Information
150
Employer/ Employee Meta Account

FIG. 17

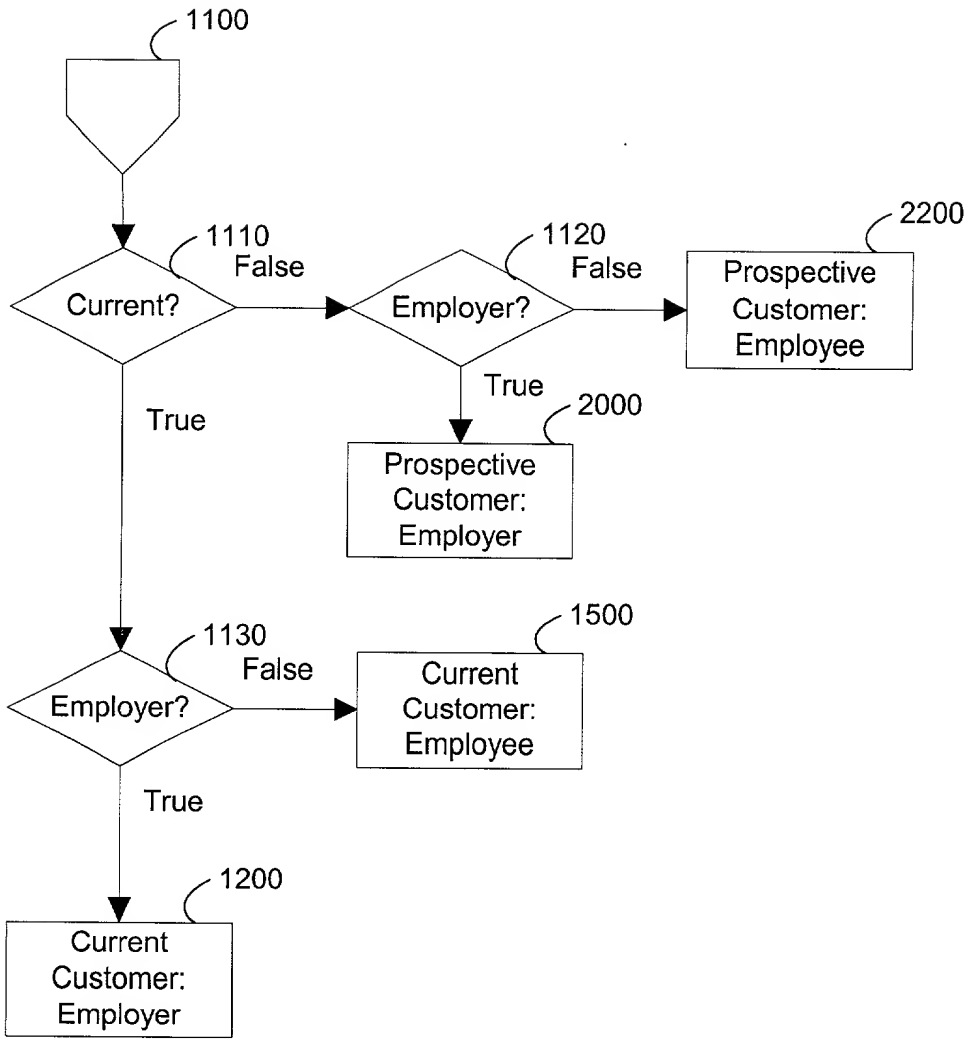
1100
1110
False
Current?
1120
False
Employer?
2200
Prospective Customer: Employee
True
2000
Prospective Customer: Employer
True
1130
False
Employer?
1500
Current Customer: Employee
True
1200
Current Customer: Employer

FIG. 18

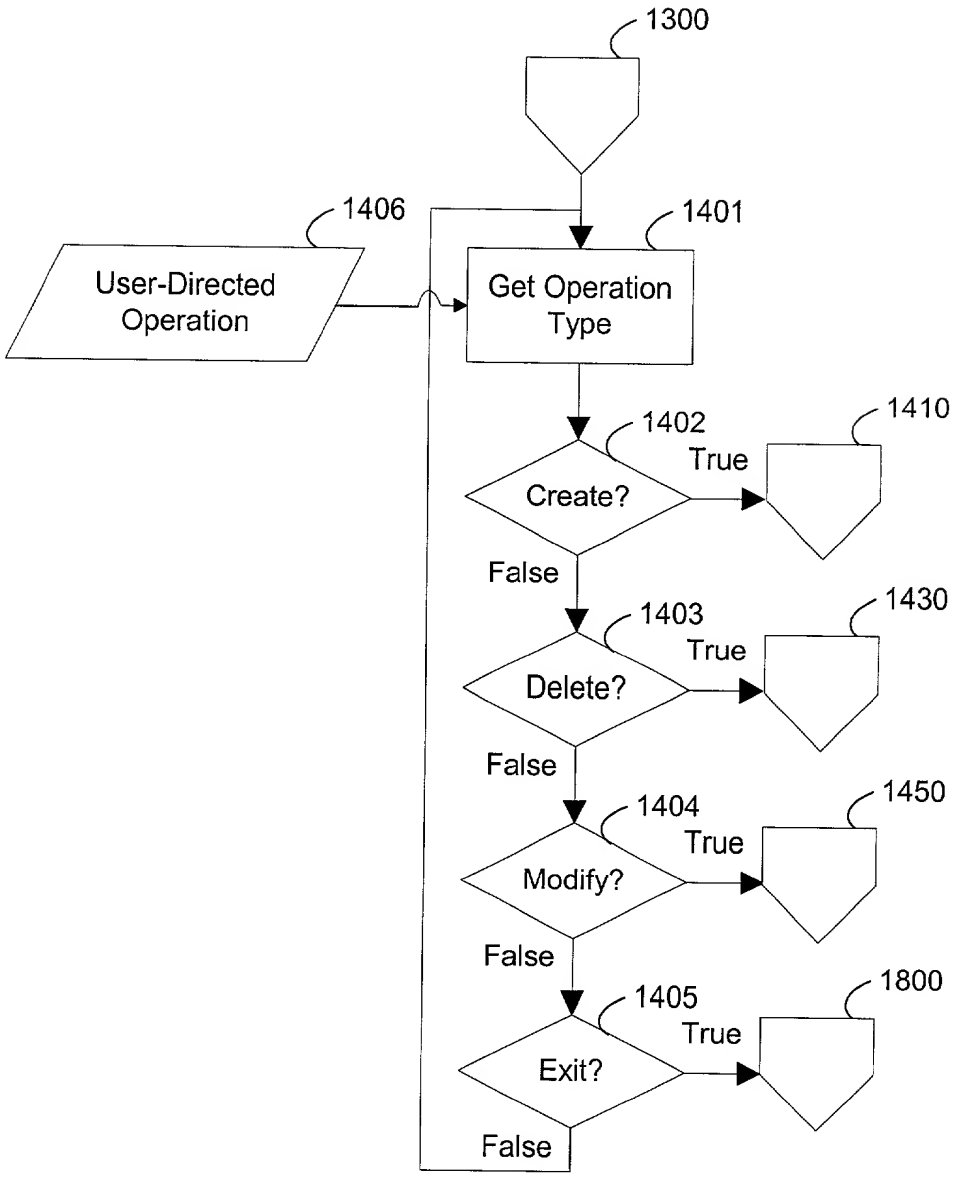
1300
1406
1401
User-Directed Operation
Get Operation Type
1402
True
1410
Create?
False
1403
True
1430
Delete?
False
1404
True
1450
Modify?
False
1405
True
1800
Exit?
False

FIG. 19

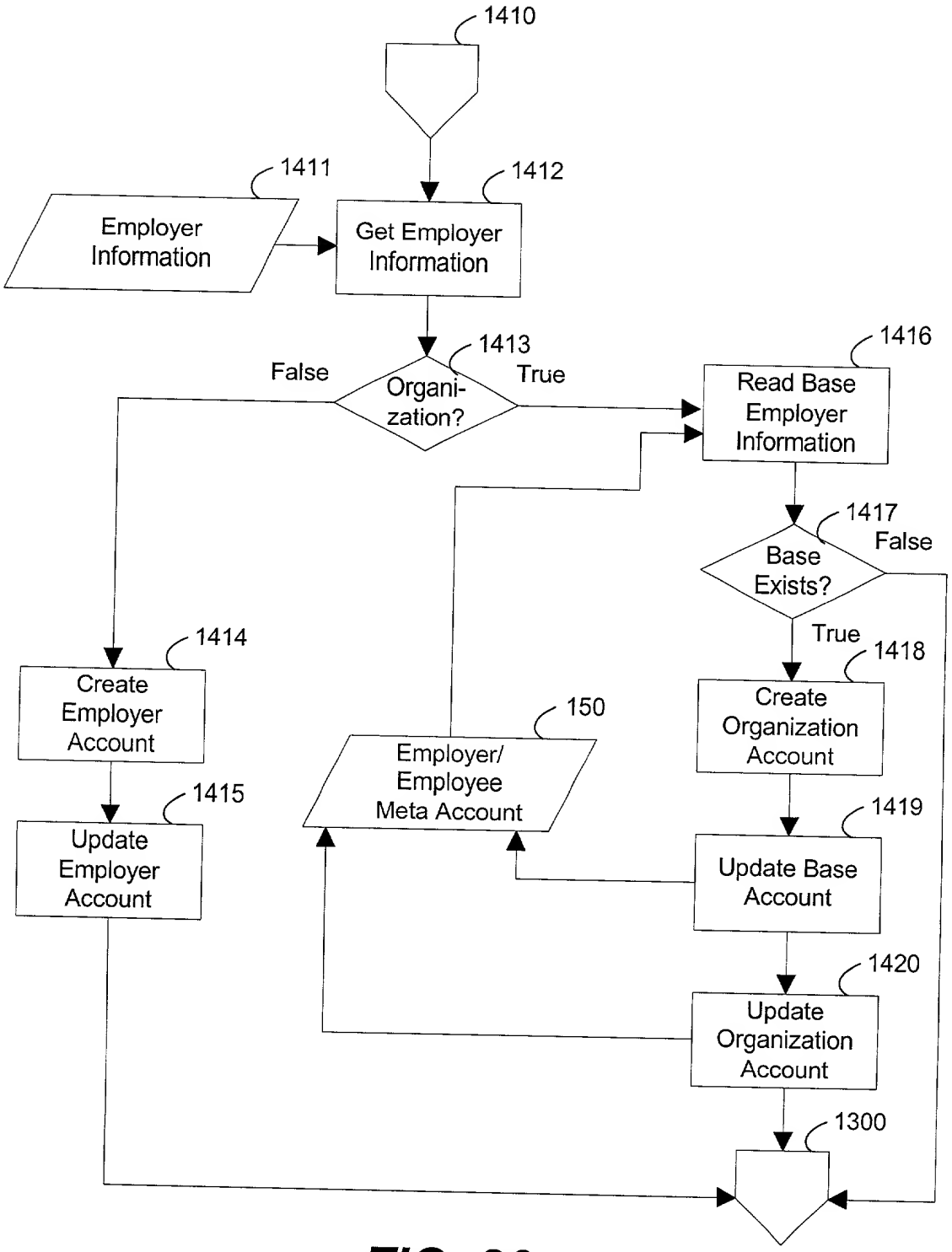
1410
1411
Employer Information
1412
Get Employer Information
1413
Organi-zation?
False
True
1416
Read Base Employer Information
1417
Base Exists?
False
True
1414
Create Employer Account
1415
Update Employer Account
150
Employer/ Employee Meta Account
1418
Create Organization Account
1419
Update Base Account
1420
Update Organization Account
1300

FIG. 20

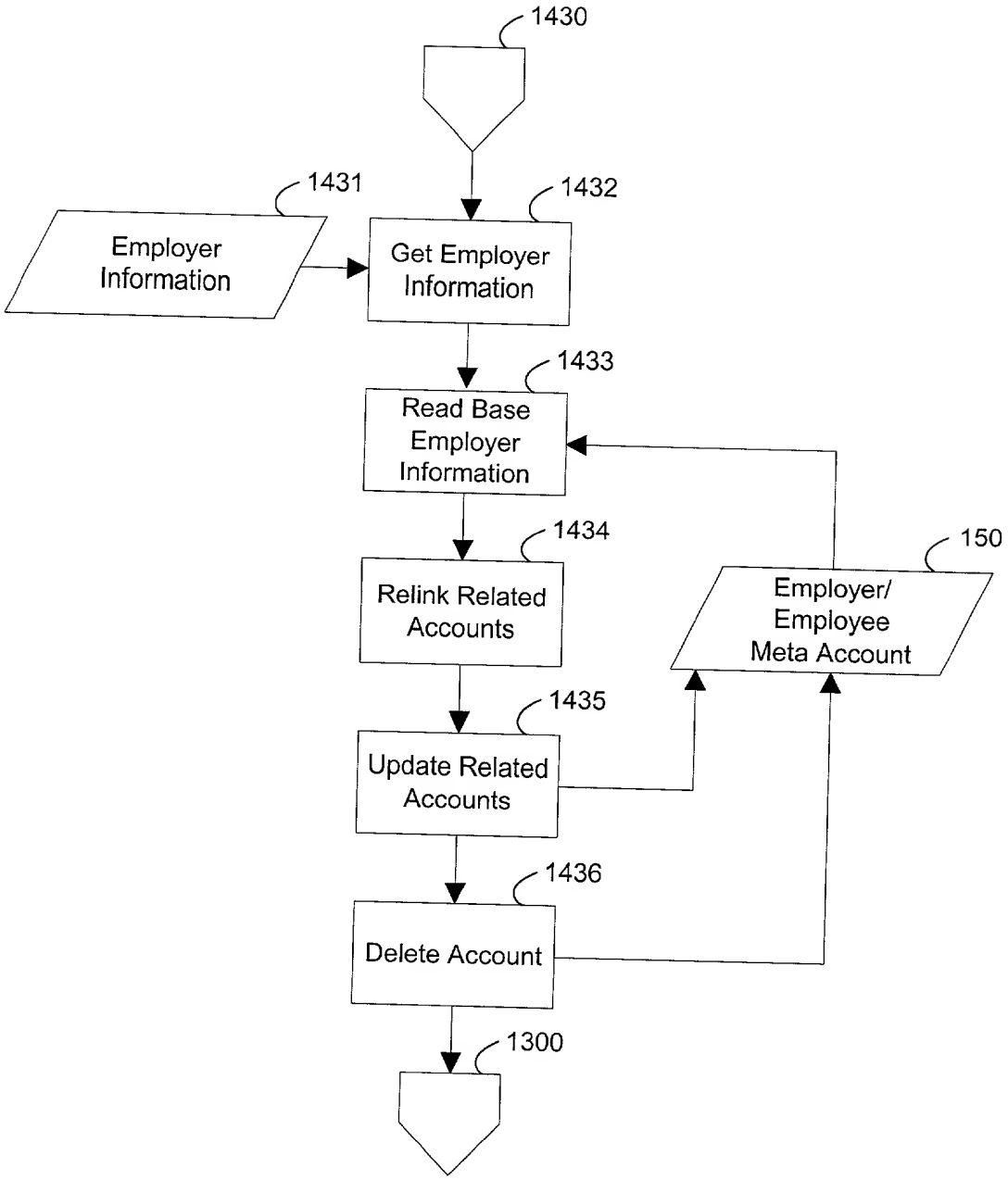
1430
1431
Employer Information
1432
Get Employer Information
1433
Read Base Employer Information
1434
Relink Related Accounts
150
Employer/ Employee Meta Account
1435
Update Related Accounts
1436
Delete Account
1300

FIG. 21

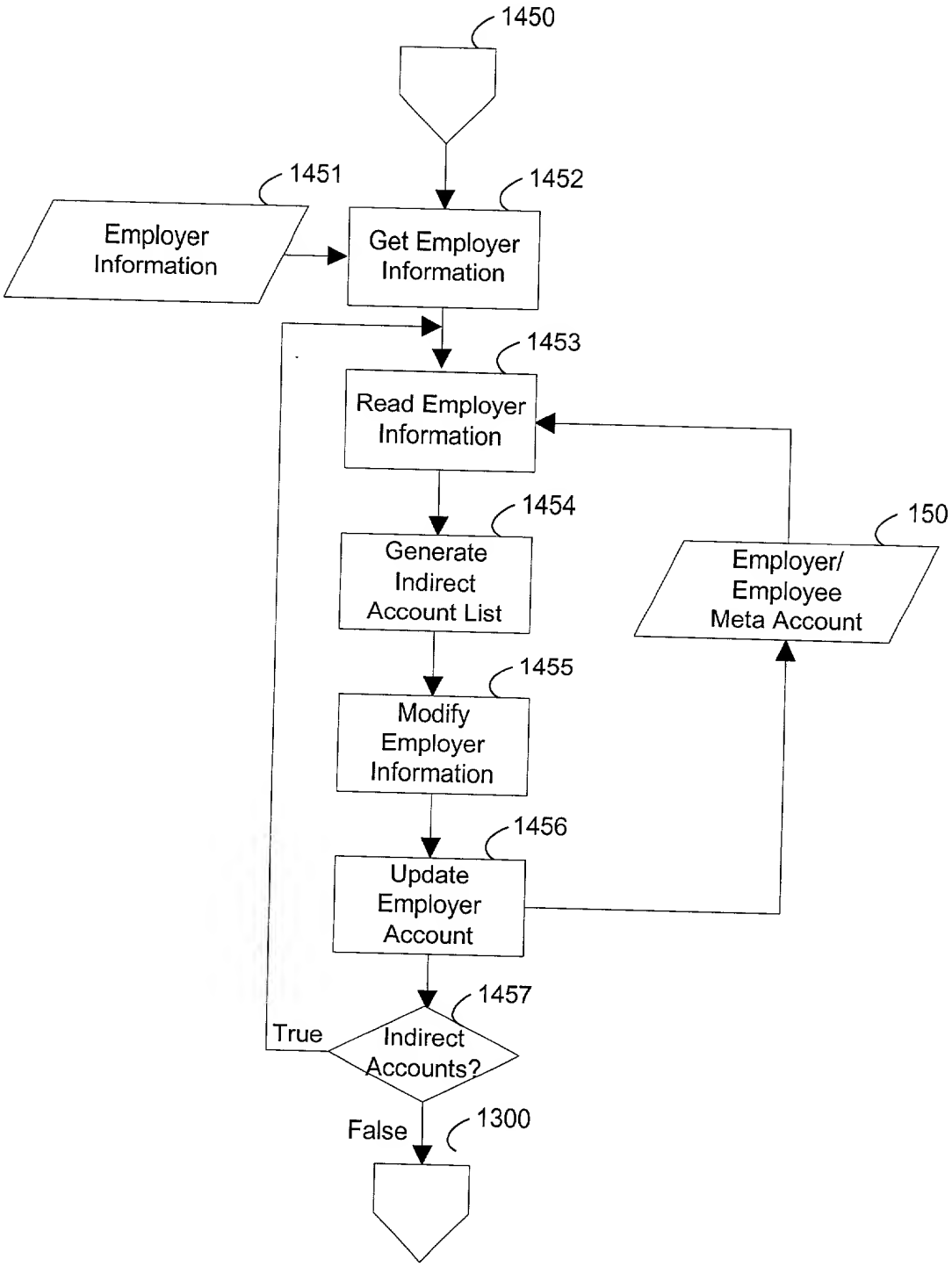
1450
1451
Employer Information
1452
Get Employer Information
1453
Read Employer Information
1454
Generate Indirect Account List
1455
Modify Employer Information
1456
Update Employer Account
1457
Indirect Accounts?
True
False
1300
150
Employer/ Employee Meta Account

FIG. 22

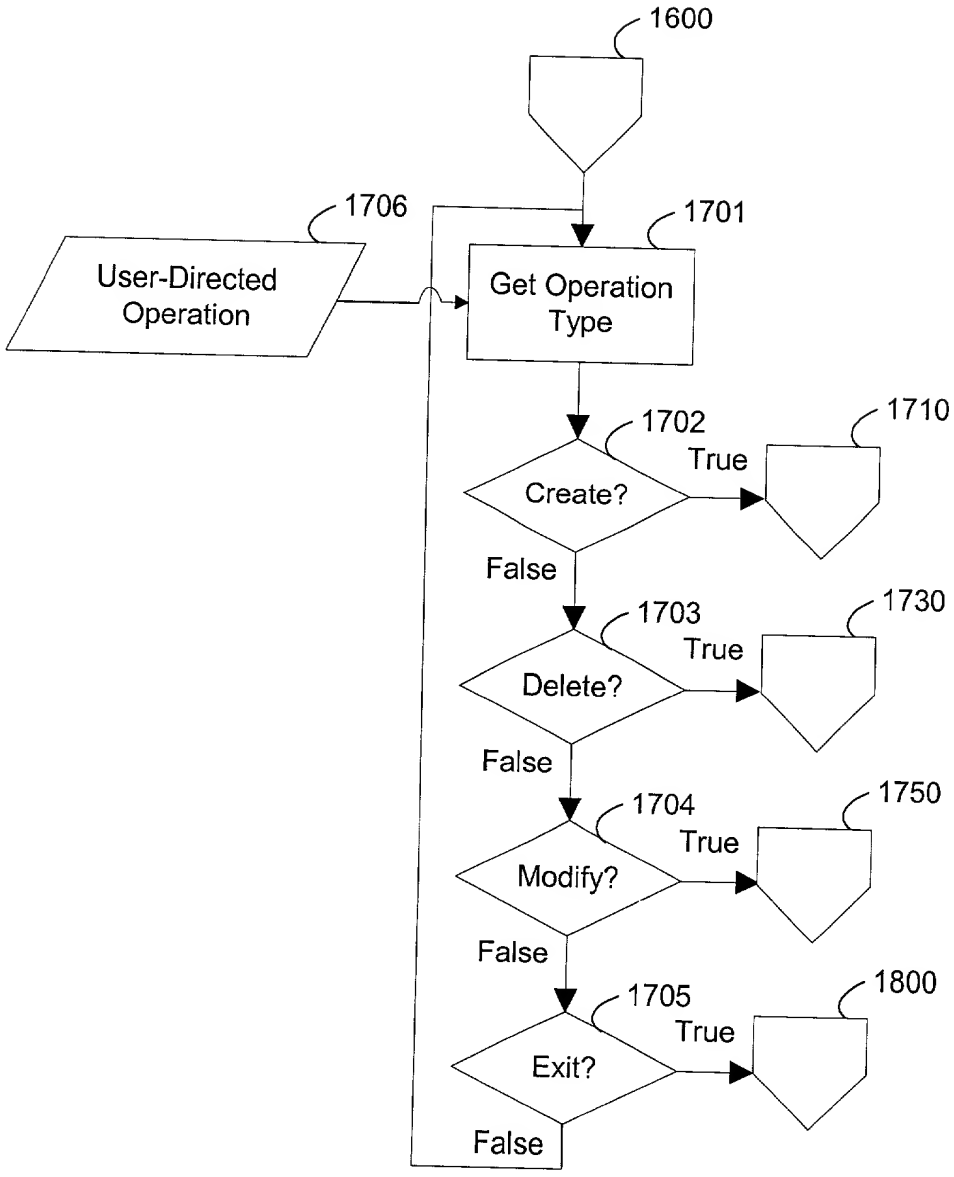
1600
1706
User-Directed Operation
1701
Get Operation Type
1702
Create?
True
1710
False
1703
Delete?
True
1730
False
1704
Modify?
True
1750
False
1705
Exit?
True
1800
False

FIG. 23

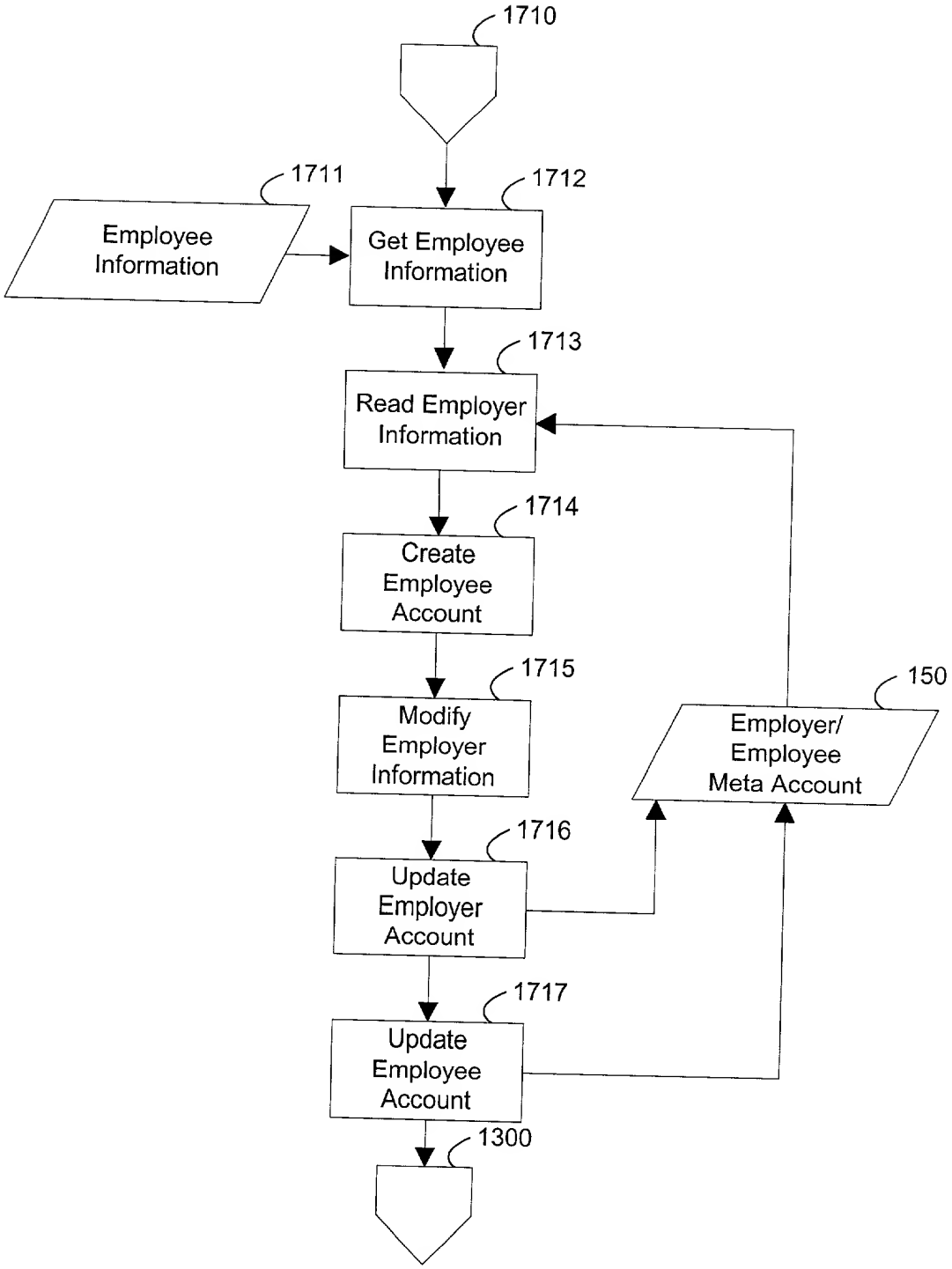
1710
1711
Employee Information
1712
Get Employee Information
1713
Read Employer Information
1714
Create Employee Account
1715
Modify Employer Information
1716
Update Employer Account
1717
Update Employee Account
1300
150
Employer/ Employee Meta Account

FIG. 24

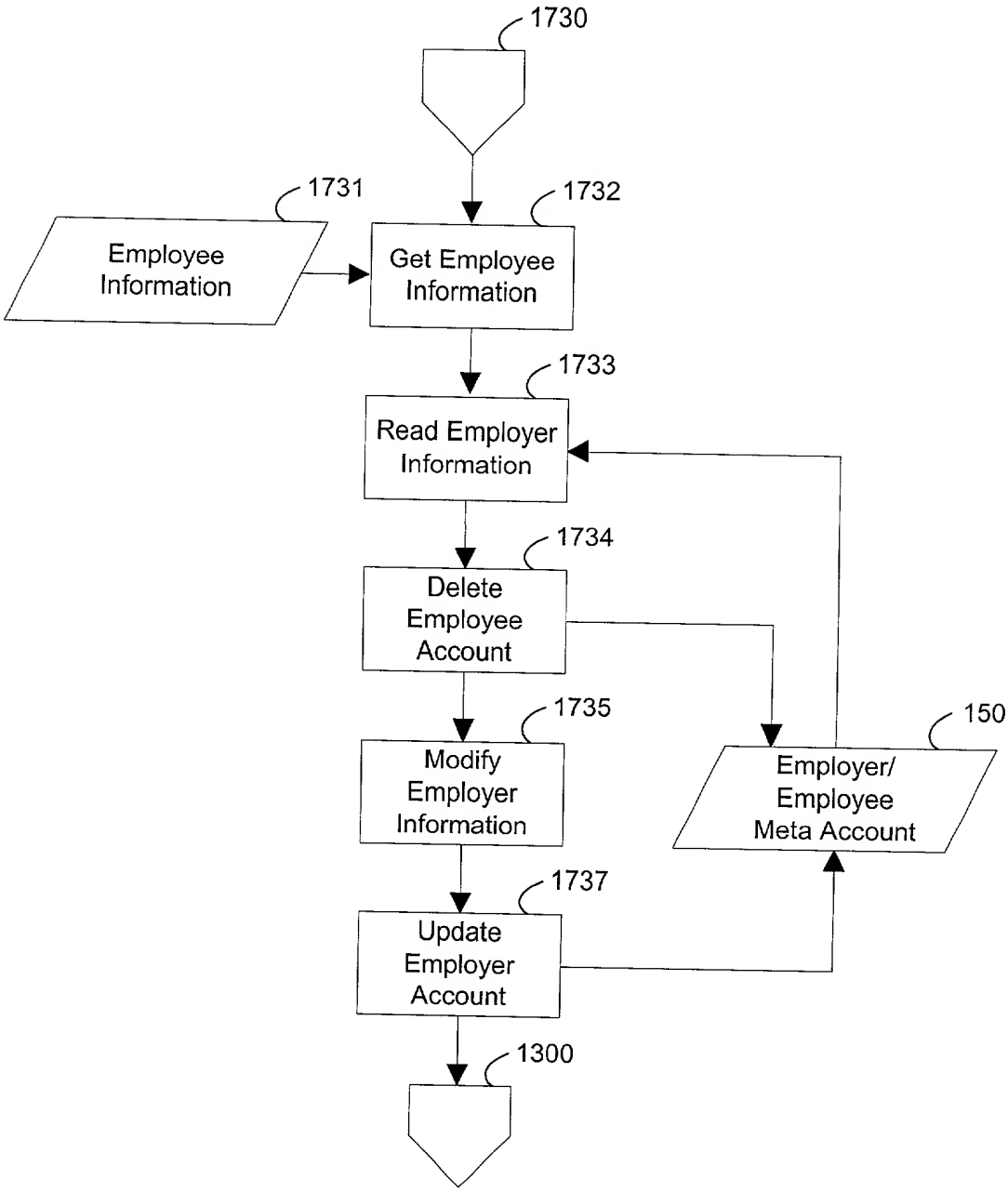
1730
1731
1732
Employee Information
Get Employee Information
1733
Read Employer Information
1734
Delete Employee Account
1735
Modify Employer Information
150
Employer/ Employee Meta Account
1737
Update Employer Account
1300

FIG. 25

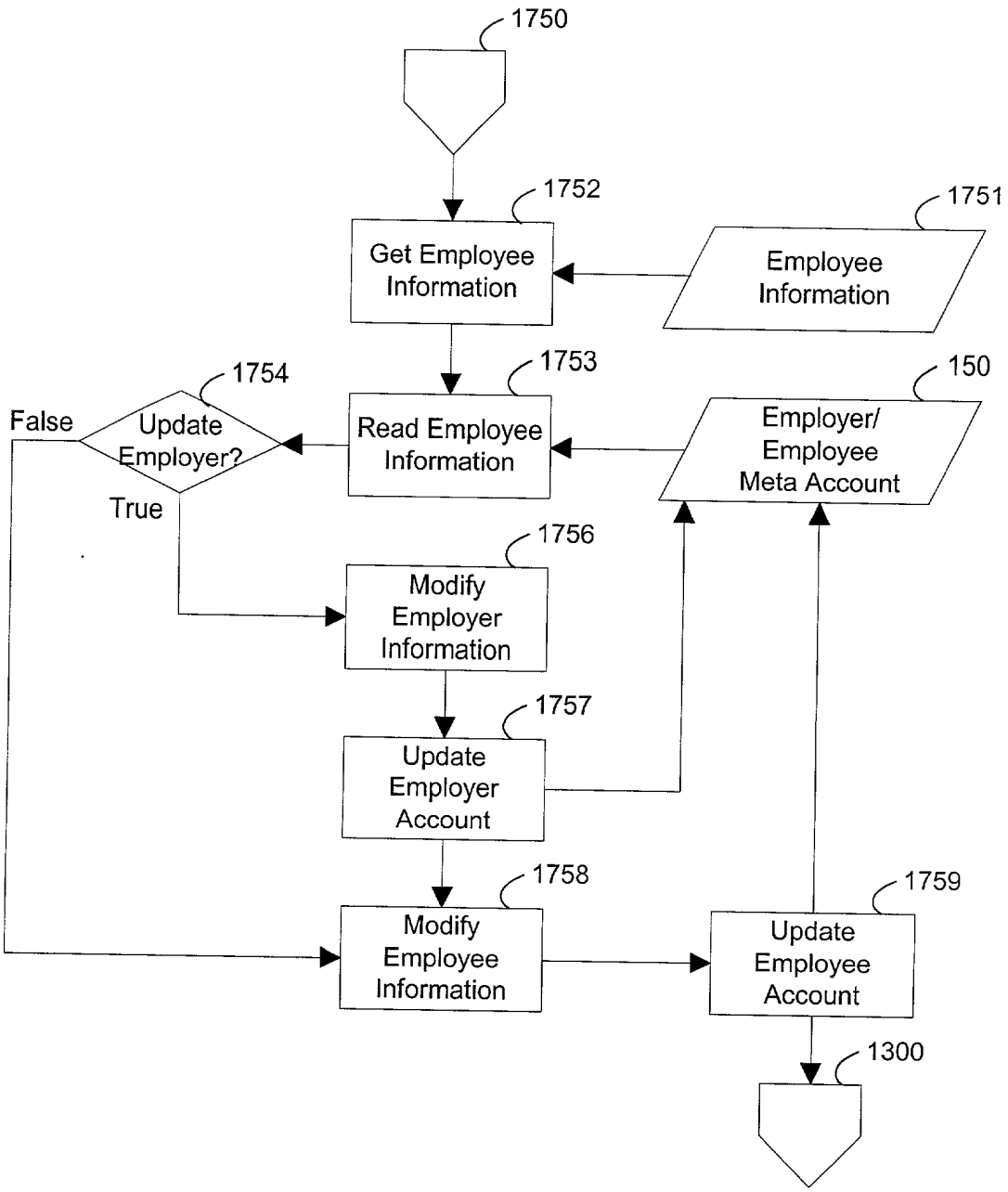
1750
1752
Get Employee Information
1751
Employee Information
1754
False
Update Employer?
True
1753
Read Employee Information
150
Employer/ Employee Meta Account
1756
Modify Employer Information
1757
Update Employer Account
1758
Modify Employee Information
1759
Update Employee Account
1300

FIG. 26